

WHAT IS CLAIMED IS:

1. A method of forming a veneer assembly comprising the steps of:

aligning an edge of a first piece of veneer adjacent an edge of a second piece of veneer to form a junction between the two pieces of veneer, positioning a layer of adhesive along at least a portion of said junction between said two pieces of veneer to join said two pieces of veneer together, placing said joined pieces of veneer against a substrate to which said pieces of veneer are to be bonded whereby said adhesive layer is positioned between said pieces of veneer and said substrate, and bonding said pieces of veneer to said substrate under conditions of elevated temperature and pressure, whereby the thickness of said adhesive layer ranges together with any backing layer that may be present on the adhesive ranges from about 0.0003 to about 0.0050 inches.

2. The method of claim 1 wherein said adhesive is selected from the group consisting of thermocurable adhesives, water-activatable adhesives, solvent-activatable adhesives, heat-activatable adhesives, radiation-curable adhesives, thermoplastic pressure sensitive adhesives, and thermoplastic adhesives.

3. The method of claim 1 wherein said adhesive is a pressure sensitive adhesive comprised of:

(1) a pressure sensitive adhesive;

(2) a polymer having a $T_g > 50\text{ }^\circ\text{C}$. comprised of the polymerization reaction product of the following monomers:

an alkyl (meth)acrylate monomer having a $T_g > 20\text{ }^\circ\text{C}$.;

a C_{1-30} (meth)acrylate monomer;

a nitrogen-containing polar monomer; and

a polymerizable epoxy-containing monomer,

said monomers being present in an amount such that the T_g of said

polymer is greater than $50\text{ }^\circ\text{C}$., and

(3) a reactive unsaturated polyester tackifier resin.

4. The method of claim 3 wherein said nitrogen-containing monomer is selected from the group consisting of vinyl monomers having at least one nitrogen atom and N-vinyl lactam monomers.

5. The method of claim 3 wherein said an N-vinyl lactam monomer is selected from the group consisting of N-vinyl-2-pyrrolidone, 5-methyl-N-vinyl-2-pyrrolidone, 5-ethyl-N-vinyl-2-pyrrolidone, 3,3-dimethyl-N-vinyl-2-pyrrolidone, 3-methyl-N-vinyl-2-pyrrolidone, 3-ethyl-N-vinyl-2-pyrrolidone; 4-methyl-N-vinyl-2-pyrrolidone; 4-ethyl-N-vinyl-2-pyrrolidone; N-vinyl-2-valerolactam; N-vinyl-2-caprolactam; N-vinyl-2-piperidone; N,N-dimethylacrylamide and mixtures thereof.

6. The method of claim 3 wherein said C₁₋₃₀ (meth)acrylate monomer is an ester of (meth)acrylic acid with a non-tertiary alcohol selected from the group consisting of 1-butanol, 1-pentanol, 2-pentanol, 3-pentanol, 2-methyl-1-butanol, 1-methyl-pentanol, 2-methyl-1-pentanol, 3-methyl-1-pentanol, 2-ethyl-1-butanol, 3,5,5-trimethyl-1-hexanol, 3-heptanol, 2-octanol, 1-decanol, 1-dodecanol and octadecanol.

7. The method of claim 3 wherein said alkyl (meth)acrylate monomer having a Tg > 20 °C. is selected from the group consisting of t-butyl(meth)acrylate, hexadecyl acrylate, isobornyl (meth)acrylate, cyclododecyl acrylate, methyl methacrylate, secondary butyl methacrylate, ethyl methacrylate, cyclohexyl methacrylate and mixtures thereof.

8. The method of claim 3 wherein said epoxy resin comprises a glycidyl monomer.

9. The method of claim 3 wherein the Tg of said polymer is at least 60 °C.

10. The method of claim 3 wherein said alkyl (meth)acrylate is present in said polymer in an amount ranging from about 20 to 80 about percent by weight.

11. The method of claim 3 wherein said C₁₋₃₀ (meth)acrylate monomer is present in said polymer in an amount ranging from 0 to about 50 percent by weight.

12. The tape of claim 3 wherein said epoxy-containing monomer is present in said polymer in an amount ranging from about 5 to about 50 percent by weight.

13. The method of claim 3 wherein said nitrogen-containing monomer is present in said polymer in an amount ranging from about 5 to about 50 percent by weight.

14. The method of claim 3 further comprising a crosslinking agent.

15. The method of claim 14 wherein said crosslinking agent is selected from the group consisting of diallyl maleate, diallyl phthalate, and multi-functional acrylates and methacrylates (such as polyethylene glycol diacrylate, hexane diol diacrylate, ethoxylated trimethylolpropane triacrylate, pentaerythritol triacrylate, propylene glycol diacrylate, trimethylolpropane trimethylacrylate and mixtures thereof).

16. The method of claim 3 wherein said composition comprises from about 15 to about 70 percent by weight of the pressure sensitive adhesive component, from about 0.01 to about 45 percent by weight of the high Tg polymer, from about 5 to about 40 percent by weight of the unsaturated polyester, and optionally from about 0.01 to about 30 percent by weight of the crosslinking agent.

17. The method of claim 1 wherein said bonding step includes a pressure within the range of from 75-500 psi.

18. The method of claim 1 wherein said bonding step includes a temperature within the range of from 200-450 °F.

19. A thermocurable pressure sensitive adhesive composition comprised of:

(1) a pressure sensitive adhesive;

(2) a polymer having a $T_g > 50\text{ }^{\circ}\text{C}$. comprised of the polymerization reaction product of the following monomers:

an alkyl (meth)acrylate monomer having a $T_g > 20\text{ }^{\circ}\text{C}$.;

a C_{1-30} (meth)acrylate monomer;

a nitrogen-containing polar monomer; and

a polymerizable epoxy-containing monomer,

said monomers being present in an amount such that the Tg of said polymer is greater than 50 °C., and
(3) a reactive unsaturated polyester tackifier resin.

20. The composition of claim 19 wherein said nitrogen-containing monomer is selected from the group consisting of vinyl monomers having at least one nitrogen atom and N-vinyl lactam monomers.

21. The composition of claim 19 wherein said an N-vinyl lactam monomer is selected from the group consisting of N-vinyl-2-pyrrolidone, 5-methyl-N-vinyl-2-pyrrolidone, 5-ethyl-N-vinyl-2-pyrrolidone, 3,3-dimethyl-N-vinyl-2-pyrrolidone, 3-methyl-N-vinyl-2-pyrrolidone, 3-ethyl-N-vinyl-2-pyrrolidone; 4-methyl-N-vinyl-2-pyrrolidone; 4-ethyl-N-vinyl-2-pyrrolidone; N-vinyl-2-valerolactam; N-vinyl-2-caprolactam; N-vinyl-2-piperidone; N,N-dimethylacrylamide and mixtures thereof.

22. The composition of claim 19 wherein said C₁₋₃₀ (meth)acrylate monomer is an ester of (meth)acrylic acid with a non-tertiary alcohol selected from the group consisting of 1-butanol, 1-pentanol, 2-pentanol, 3-pentanol, 2-methyl-1-butanol, 1-methyl-pentanol, 2-methyl-1-pentanol, 3-methyl-1-pentanol, 2-ethyl-1-butanol, 3,5,5-trimethyl-1-hexanol, 3-heptanol, 2-octanol, 1-decanol, 1-dodecanol and octadecanol.

23. The composition of claim 19 wherein said alkyl (meth)acrylate monomer having a $T_g > 20^\circ\text{C}$. is selected from the group consisting of t-butyl(meth)acrylate, hexadecyl acrylate, isobornyl (meth)acrylate, cyclododecyl acrylate, methyl methacrylate, secondary butyl methacrylate, ethyl methacrylate, cyclohexyl methacrylate and mixtures thereof.

24. The composition of claim 19 wherein said epoxy resin comprises a glycidyl monomer.

25. The composition of claim 19 wherein the T_g of said polymer is at least 60°C .

26. The composition of claim 19 wherein said alkyl (meth)acrylate is present in said polymer in an amount ranging from about 20 to 80 about percent by weight.

27. The composition of claim 19 wherein said C_{1-30} (meth)acrylate monomer is present in said polymer in an amount ranging from 0 to about 50 percent by weight.

28. The composition of claim 19 wherein said epoxy-containing monomer is present in said polymer in an amount ranging from about 5 to about 50 percent by weight.

29. The composition of claim 19 wherein said nitrogen-containing monomer is present in said polymer in an amount ranging from about 5 to about 50 percent by weight.

30. The composition of claim 19 further comprising a crosslinking agent.

31. The composition of claim 30 wherein said crosslinking agent is selected from the group consisting of diallyl maleate, diallyl phthalate, and multi-functional acrylates and methacrylates (such as polyethylene glycol diacrylate, hexane diol diacrylate, ethoxylated trimethylolpropane triacrylate, pentaerythritol triacrylate, propylene glycol diacrylate, trimethylolpropane trimethylacrylate and mixtures thereof.

32. The composition of claim 30 wherein said composition comprises from about 15 to about 70 percent by weight of the pressure sensitive adhesive component, from about 0.01 to about 45 percent by weight of the high Tg polymer, from about 5 to about 40 percent by weight of the unsaturated polyester,

optionally from about 0.01 to about 30 percent by weight of the crosslinking agent, and from about 0 to 45 percent by weight of a resinous tackifier.

33. An adhesive tape comprised of a backing layer and the adhesive composition of claim 19.